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AUTHOR Wagner, June G.
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ABSTRACT

This document contains three articles devoted to assessing online learning. "Online Learning: A Digital Revolution" profiles innovative World Wide Web-based programs at high schools and colleges in the United States and worldwide and discusses the following topics: new demographic realities; the need for continuous (lifelong) learning; and strategies for reinventing education. "Determining the Efficacy of Online Learning" begins by defining learning and proceeds to explore the following topics: new learner and teacher responsibilities; assessment of student outcomes and attitudes; gaps in the research on distance and online learning efficacy; methods of assessing courses, teachers, and programs; and the relationship between online learning and business education. A table devoted to measures of quality in online learning lists a total of 24 benchmarks for use in evaluating the following aspects of online learning and instruction: institutional support; course development; teaching/learning; course structure; student support; faculty support; and evaluation and assessment. "Meeting the Challenges of Teaching Students Online" presents guidelines for creating effective course Web sites and promoting high student participation and performance levels. A list of 13 print and online resources concludes the document. (MN)

R. M. McDowell

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ASSESSING ONLINE LEARNING

Online Learning: A Digital Revolution

It's early morning in Raleigh, North Carolina, when Emily logs onto the Word Wide Web at her high school. In Manchester, England, and Frankfurt, Germany, it's mid-afternoon when James and Karl link up with Emily in a virtual classroom to collaborate on a project dealing with import/export regulations and the European Union. The project will be presented next week to the rest of their classmates via a live, Web videoconference. Afterwards, there will be an online quiz and essay. The teachers, located in Raleigh and in Milan, Italy, have been working with a group of international trade and marketing students scattered around the world with similar interests and expertise through virtual seminars and labs.

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Determining the Efficacy of Online Learning

The explosive growth of the Internet has ushered in a new era of virtual education. But is this mode of learning as effective as the face-to-face learning that occurs in a traditional classroom environment? This question is at the heart of the debate concerning the merits of online course delivery.

Critics of the new medium argue that while online courses are an easy way for educational institutions to save money and enhance enrollment, they compromise personal contact between the teacher and student, which they view as essential to the learning process. Younger students, they argue, especially need face-to-face interaction with their peers and teachers to promote the development of important interpersonal skills that will help them enter the workforce and succeed in a complex world.

Proponents contend virtual education is superior to learning in crowded college and university lecture halls. Online learning, they argue, presents a more customized learning format in which teachers must communicate directly with each student and in which education can be delivered anywhere, anytime, and to anyone who needs it. Moreover, it facilitates students' active involvement in decisions about their education.

While much of the research into this new medium of learning is still ongoing and inconclusive, we will examine some of the latest thinking on this important topic.

Defining Learning

Complicating our ability to assess the efficacy of online learning is the complexity of the learning process itself. Some educators have defined learning as the acquisition of a set of conceptual facts and ideas that can quickly be recalled during formal examinations. For others, it includes the ability to "integrate new knowledge critically or creatively into unique contexts." Still others include student "appreciation and enjoyment" into a full definition of learning.

Shifts in teacher beliefs and practices have placed more emphasis on higher-order thinking skills such as critical thinking and problem solving. The SCANS report, for example, has stressed the need for these skills for workplace success. Stephen D. Lewis, a professor of business education and office management at Middle Tennessee State University in Murfreesboro, Tennessee, also points to research conducted by the National Association of Colleges and Employers (NACE), which shows that such soft skills as the ability to get along with others, to work in teams, and to communicate effectively are vital to modern-day employers.

Any studies assessing the efficacy of online learning must therefore take into account our increasingly broad and complex definitions of learning. In 1999, an Institute for Higher Education Policy Study sponsored by the American Federation of Teachers and the National Education Association conducted a comprehensive review of

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This is hardly a futuristic scenario. Once considered glorified correspondence courses, online courses are proliferating at a dramatic pace and will soon become an integral part of the educational delivery system. At Fairleigh Dickinson University in Teaneck and Madison, New Jersey, for example, all students must complete one online course per semester. At the University of South Florida in Tampa, an online master's program in career and technical education will be available in the fall of 2001. Full-fledged virtual universities are also appearing. The British Open University, for example, began experimenting with Internet-based instruction as early as 1994.

Marcia L. James, chair of the business education/computer and network administration department at the University of Wisconsin in Whitewater, points to a recent report issued by the U.S. Department of Education indicating that there are now over 26,000 Web-based courses available, with estimates of 100 new college courses going online each month. During the current academic year, approximately two million people will take online courses. The virtual education trend is spreading into all segments of our society, including the U.S. Army, which will spend \$600 million over the next six years to help recruits obtain college degrees, regardless of where they are stationed.

Essentially, online education at the college and university level is being provided through four venues:

1. Institutions of higher education that offer both virtual versions of traditional courses and entirely new online courses;
2. Consortia of educational institutions,

like the Western Governors University, that are sharing academic and network resources to create a virtual institution;

3. Correspondence schools that are transferring paper and pencil courses to electronic formats; and
4. New virtual universities, some yet to be accredited, that offer online courses and programs exclusively.

All four types of institutions are offering both undergraduate and graduate courses; some even provide entire degree programs via the Internet.

Secondary institutions are also beginning to offer online courses, though not as extensively as colleges and universities. Christopher I. Cross, president of the Council for Basic Education in Washington, DC, has pointed to the proliferation and ubiquity of computer devices—desktop, laptop, and palm-sized—as a catalyst for distance education, allowing even rural and smaller high schools “to offer whatever classes students need, from Chinese to advanced physics.”

Lisa Bourlier, the associate principal at the University of Nebraska-Lincoln Independent Study High School, observes that “online courses reach many bright students who would not normally be able to continue their education or be able to prepare for the rigorous entrance requirements of some colleges.” The school currently serves over 15,000 students in 136 countries and will offer a complete, accredited high school diploma sequence on the Internet by October 2001.

As more schools enhance their course offerings with online learning, students will increasingly be grouped by interests and abilities rather than by age and location. They will also be able to accomplish more of their learning from home and to form teams with other students from across the country or around the world to work on different projects.

Widespread adoption of current and emerging technologies is not only enhancing the speed and ease with which individuals communicate and transmit information, but is also contributing to a digital world in which education, like business, can be conducted on a global, 24-hour-a-day, seven-day-a-week basis. At the same time, complex business and social forces are fueling a demand for the delivery of online courses and degrees.

New Demographic Realities

In 1950, 90 percent of students attending college were between the ages of 18 and 21; they were also almost all full-time students living on campus. Today, only 52 percent of college students are between 18 and 21; less than 15 percent are full-time students living on campus.

Observes **Jack E. Johnson**, interim dean at the College of Business at State University of West Georgia in Carrollton, Georgia: “Nontraditional adults are rapidly becoming the new majority in classrooms today, and policymakers must recognize the educational expectations voiced by this majority.”

Most of these nontraditional adults work and are unable to attend classes in a traditional sense, he points out. Their demand for more flexible and convenient educational options is spurring the popularity of online courses and a movement toward virtual education.

Merrill Lynch reported that \$1.2 billion of the \$249 billion spent on higher education went to online learning in 1999 and predicts that \$7 billion will be spent on this format by 2003.

The Need for Continuous Learning

The need for continuous, lifelong learning has increased dramatically as job skills required by employers become more sophisticated and more subject to changes effected by rapidly advancing technologies, an exponential growth of information, and new ways of doing business. Over the past few decades, the nature of work has been shifting from manufacturing to service and from paper and pencil to computer. Indeed, most of today's jobs, particularly in technology, did not exist 10 years ago, and by 2006, according to the U.S. Department of Commerce, almost half of the American workforce will be employed by industries that are either major producers or intensive users of information technology products and services.

Yet in this dynamic, fast-paced economic environment, employers are reluctant to give their employees time off to upgrade their skills. Busy work schedules and family responsibilities have

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the research on distance education, including online learning. The review found that the "bulk of these writings suggests that the learning outcomes of students using technology at a distance are similar to the learning outcomes of students who participate in conventional classroom instruction." However, the review also concluded that "there is a relative paucity of true, original research dedicated to explaining or predicting phenomena related to distance learning."

Three methods have generally been used to measure the effectiveness of distance education: student outcomes, such as grades and test scores; student attitudes about distance learning; and overall student satisfaction toward distance learning. Some of the major shortcomings of the research are listed in Table 1.

Perhaps the main problem according to Rena M. Palloff and Keith Pratt, authors of *Building Learning Communities in Cyberspace*, is that online courses and programs have been "appearing so rapidly that little thought has been given to the possible impact of the delivery method—either educationally or socially."

New Learner and Teacher Responsibilities

One finding about online learning that is emerging from both research and anecdotal teaching experience is that it places greater responsibility on both the learner and teacher. Janet Scaglione, an associate professor and business education coordinator at the University of South Florida in Tampa, observes that students must be self-motivated and self-directed. "Self-discipline," she says, "is also essential. Students who do not take this method of course delivery seriously will not be successful."

Jack E. Johnson observes that the "online student must be a special kind of student: typically self-motivated, organized, and punctual. It's very easy for online students to become lackadaisical because they are not physically required to be in a classroom with the teacher and other students."

"Procrastination is one of the biggest problems in teaching a virtual course," notes Herb Brown, assistant professor of administrative information management

at the University of South Carolina in Columbia. "Students need to schedule it as a regular course." Blocks of uninterrupted computer time should be set aside regularly to accomplish assignments. Some students enroll in an online course because they think it will be an easy course, adds Lisa Bourlier, when in actuality it requires more time and effort.

One concern that has arisen about online courses is their higher drop-out rate. For Marcia L. James, who taught an online business communication course, of the 30 students who attended the orientation session, 20 continued. Of these 20, 18 finished the course in good shape. Not all students are suited for virtual education, she stresses. However, such courses do tend to make students responsible for their own learning, which is good preparation for lifelong learning.

In general, adult learners tend to possess more of the qualities needed for successful online learning. For these learners, online courses can offer an ideal way to acquire new skills and knowledge. Self-direction and self-discipline can be fostered in younger learners in the primary and secondary grades as their learning shifts from teacher-centered to more student-centered activities.

Online course delivery also makes additional demands on teachers. Scaglione likens online learning to teaching a whole group of students on independent study. "It is a very time-intensive process," she notes. "You can't just walk into the

classroom and give an impromptu lecture. Fifteen students is an ideal number for an online course, but many institutions want 25–30 students enrolled in such a course."

Dennis LaBonty, a professor in the business information systems education department at Utah State University in Logan, Utah, observes that preparation for online courses can be anywhere from two to 10 times more labor-intensive than a traditional course. "A WebCT course requires time to build, edit, and test. Upkeep on Web courses is ongoing and also requires much time and skill."

While online learning is more time-consuming notes Arthur McEntee, NABTE president and associate professor of business at the University of Maine in Machias, it forces teachers to take a more active role in the teaching process. "You can't always rely on a textbook. You have to be creative and think about everything you do."

Assessing Student Outcomes and Attitudes

One constraint of online learning is that it provides a smaller "window of opportunity" in which to assess students. Students in the traditional classroom environment are less confined to formal assessment tasks. "Their interest, motivation, questioning, and interaction are all on display throughout the learning encounter," note Chris Morgan and Meg O'Reilly, authors of *Assessing Open and Distance Learners*.

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TABLE 1. GAPS IN THE RESEARCH ON DISTANCE/ONLINE LEARNING EFFICACY

- 1) The research has tended to emphasize student outcomes for individual courses rather than for a total academic program.
- 2) The research does not take into account differences among students, such as gender, age, educational experience, motivation, etc.
- 3) The research does not adequately explain why the drop-out rates of distance learners are higher.
- 4) The research does not take into consideration how the different learning styles of students relate to the use of particular technologies.
- 5) The research focuses mostly on the impact of individual technologies rather than on the interaction of multiple technologies.
- 6) The research does not include a theoretical or conceptual framework that will allow researchers to build on the work of others and allow studies to be replicated.
- 7) The research does not address the effectiveness of digital libraries.

Source: *What's the Difference? A Review of Contemporary Research on the Effectiveness of Distance Education in Higher Education*, April 1999, The Institute for Higher Education Policy sponsored by the American Federation of Teachers and the National Education Association.

Meeting the Challenges of Teaching Students Online

For instructors teaching their first online course, the new format can seem intimidating, particularly in regard to the technology. **Herb Brown** stresses the importance of good technical support in facilitating the transition from classroom to online teaching and in assisting with the inevitable problems that arise from equipment failure. "Teachers should not have to fill in as network administrators," he observes. They must, however, be familiar with the various technologies, such as the platform they will use to deliver the course (WebCT, Blackboard.com, TopClass, PageOut Lite, etc.).

"Have a contingency plan if you are online and the World Wide Web goes down," advises **Jack E. Johnson**. "For example, you may tell the students at the beginning of the class that, if the Internet fails, they should read or study assignments that you have previously shared or should work on group projects with their team members if not everyone has lost connection to the Internet." **Marcia L. James** likes to use file transfer protocol (FTP) to upload course files to another server in case the main server fails.

In addition to mastering the technology, getting to know the students is vital to the success of the class, notes Johnson. "Remember," he says, "they may be physically located at a great distance from you. What are their skills and backgrounds? Some students will have poor keyboarding skills; therefore, they will find it difficult to communicate in chat room discussions, e-mail, etc. Be prepared to work with all skill levels."

Organizing and preparing course materials ahead of time are also essential. "Get your syllabus ready as well as handouts that you are going to post on the Web," says Johnson. "Copyrights should also be obtained if you are going to share any materials you are using from original sources."

Janet Scaglione recommends building an online course and resources while teaching a traditional version of the course. This saves time, eases the transition into a Web-only format, and provides a way to fine-tune class materials by getting immediate student feedback.

Creating Effective Course Web Sites

Since course materials will be presented primarily on the Internet, building effective Web pages is a critical task. The first page students will see is a home page that should be informative and appealing; it should contain only the most vital information about the course, without any scrolling or elaborate



Because some students may believe online courses are easier than traditional courses, teachers must be forthright in establishing high performance expectations and challenging learning tasks. The roles and responsibilities of students should be clearly communicated to all online learners.

graphics that take a long time to load. Since text is not as easy to read on-screen as it is on paper, short, clear paragraphs with simple, direct language work best. Color can help organize Web pages and provide emphasis to text.

An introduction page should contain a concise course description, a date showing the last update, an e-mail link to a contact person, and a hyperlink to the syllabus. A course overview page should

also be included, as should a page with contact information, such as e-mail and surface addresses of the teacher and tutors, as well as their voice and fax telephone numbers. Online office hours should also be posted.

The course requirements page should list the necessary textbooks and software, as well as the minimum hardware and software capabilities to work online. James provides an online manual to orient students to the navigational technology and logistics of the course.

A calendar page will help students pace their work and inform them about assignment due dates, exams, and quizzes. Also important are a bulletin board and conferencing area/chat room where students can meet. A course evaluation page will help instructors get vital feedback so they can continue to improve their online courses.

Promoting High Student Participation and Performance Levels

One of the biggest challenges of online education is creating effective learning experiences using this medium. Interaction/interactivity has become something of a buzzword in online learning as well as in education in general. It is seen as a key means for promoting long-term retention and understanding of new ideas and for allowing students to gauge and correct the quality of their performance. Interaction is also seen as a way to encourage such soft skills as teamwork and leadership. Finally, it is seen as essential for promoting lifelong learning skills by enabling learners to self-determine what strategies are necessary to achieve the desired ends of a learning experience.

Johnson recommends taking full advantage of the newer technologies to create multiple types of interactions that will enhance the online learning process. Among the options teachers can utilize, he observes, are:

- Placing materials on the Web for students to read like syllabi, handouts, etc.;

- Having students participate in synchronous chat room discussions;
- Posting bulletin board announcements for all students to read;
- Posting private mail to individuals or selected students;
- Directing students to specific sites to gain information required for the course; and
- Requiring students to send e-mails to each other and to the instructor.

Also available are voice-over PowerPoint presentations that enable students to hear materials as though listening to a real lecture, notes Brown. As students read text in enriched online multimedia environments, they can see images, hear music, watch relevant video, and click on highlighted words to obtain background information.

Teachers must take a leadership role in encouraging communication among all class members and in modeling the style

of interaction they expect of their students. James, for example, encourages the use of a buddy system so that students can communicate with each other and answer minor questions in regard to course materials or technology issues. Instigating informal sharing and communicating a sense of fun and enthusiasm about the online experience can help promote student achievement and create a supportive learning atmosphere. Students, for example, can be encouraged to build and share their own Web pages and online journals.

Because some students may believe online courses are easier than traditional courses, teachers must be forthright in establishing high performance expectations and challenging learning tasks. The roles and responsibilities of students should be clearly communicated to all online learners. "Students will want to know how their work is going to be

assessed," says Johnson, "so teachers must have a detailed idea of how they will grade all the work they do (from chat room discussions, to e-mails, to site reviews, to URL visits, to reports sent electronically to the instructor via the Internet)."

Structure is essential to quality student work, notes Scaglione. Assignments and exams must be thoroughly planned, and there must be a quick turnaround on feedback. Johnson further observes that "chat room activities and e-mails should not be graded for accuracy, but reports and assignments sent to instructors as attachments to an e-mail message should contain the same levels of accuracy and professional appearance as those required in traditional classes." While some of the methods of assessing students online may differ, the standards for achievement and performance should not be any less rigorous.

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thus made it difficult for adult learners to participate in traditional classroom instruction. A recent survey found that most distance learning students are between the ages of 25 and 50. Almost two-thirds are female, most of whom are married and working full-time while taking courses. Online learning has received much attention as a means of creating new educational options for women with parenting responsibilities who may be otherwise limited in future employment opportunities.

Studies have shown that while men tend to be fully supported by their partners in pursuing their studies, women do not receive the same support and have greater difficulty finding undisturbed time to complete their training. Online course delivery is viewed as a way to make universal access to educational opportunity a practical reality. In addition to women, individuals with physical or learning disabilities, different cultural and language backgrounds, as well as those living in rural or isolated communities are seen as benefiting from online learning. The ease, cost-effectiveness, and convenience of conducting online courses are also helping to make this delivery

mode an important part of the educational experience in a society where lifelong learning has become a necessity.

Reinventing Education

At Columbia University in New York City, students will be able to tap into the Internet without a phone connection because of the high frequency radio waves that will soon permit a wireless connection throughout campus. Online courses and resources, as well as "smart classrooms" that enable faculty to give sophisticated, multimedia computer presentations, are also part of the university's efforts to transform itself and adapt to our new digital culture. Provost Jonathan Cole comments, "We're undergoing one of the most profound revolutions in access to knowledge."

Schools and universities are increasingly adopting a customer-service orientation toward education, where different kinds of knowledge delivery exist side by side. Online education, for example, is attracting both nontraditional students and students living on campuses who are also attending traditional face-to-face classes. As homes, schools, and businesses become increasingly wired and interconnected, education on any subject will soon be available on demand in a

variety of formats. Online learning is at the forefront of this digital revolution.

"We must immediately put to rest the notion that full development of Web-based technology for education is a choice," Senator Bob Kerrey (D) of Nebraska and chair of the national Web-Based Education Commission has stated. "The Internet is revolutionizing all parts of society, but its impact on education is just beginning to be understood." While there is general acknowledgement that online teaching and learning are different from these experiences in the traditional classroom environment, little is understood about the different and various kinds of teaching and learning skills that are required for this new medium.

As online learning continues to gain momentum, educators, administrators, and policymakers must examine the best ways to make this kind of learning a successful experience for educational institutions, teachers, and students. A first step in helping to ensure this success is by assessing the efficacy of online learning. Only by discovering the strengths and weaknesses of this new learning medium will educators be able to minimize its limitations and maximize its use in delivering skills and competencies to the workforce of the 21st century.

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Frequent communication and a variety of assignments can help counteract these problems. Morgan and O'Reilly recommend that formative and summative assessment be "strategically interwoven to motivate and provide some structure to learning, to create a source of dialogue, and to help learners gain insight into their progress."

Generally, students tend to do better in online courses that are interactive and that provide continuous feedback. Using a variety of teaching methods and multiple types of interaction, notes Brown, meets as many learning styles as possible and tends to enhance student outcomes and attitudes toward online courses.

Online assessment can take a variety of formats, such as e-mail submission of essays or reports, collaborative projects that demonstrate group decision making and teamwork skills, short answer questions, and student production of Web pages. Multiple choice tests can also be used. However, Lewis points out that these kinds of tests are more vulnerable to security issues, even if a password is used. "Today's technology," he says, "still doesn't allow an instructor to be completely certain that the student enrolled in a course is in fact the person completing examinations or other assignments." The instructor also has limited ability to control the time taken to complete an assignment or the resources the student can access.

Because of security issues, Brown does not use multiple choice tests to evaluate his online students. Instead, he uses projects, portfolios, journaling, and online group projects. He uses anonymous online evaluation forms to gauge student attitudes toward the material and the course.

Difficulties regarding test security and proof of authorship on reports can be alleviated, says Scaglione, through constant communication and alternative assessment techniques, such as portfolios, rather than traditional tests. "When you have students do a number of reflections and writing projects, you begin to see their personality, writing style, and skill levels," she says. A follow-up phone call can also serve to reveal whether a student has actually acquired the knowledge he or she has demonstrated online.

Because many online students are adult learners, an emphasis on authentic assessment tasks such as case studies, problem scenarios, and projects can be especially appropriate and can ensure that students demonstrate higher-order thinking skills that have direct applicability to the workplace environment.

Morgan and O'Reilly suggest that rather than simply replicating existing assessment practices, teachers and administrators should take advantage of the new delivery method that online learning offers to design new assessment strategies. "In such a new environment," they state, "we cannot assume that our old methods and thinking regarding teaching and assessment still apply."

Assessing Courses, Teachers, and Programs

The key to gauging and improving the efficacy of online learning lies not only in assessing students, Brown believes, but also in assessing courses, teachers, and programs. Ultimately, this provides the only way for institutions to discover how to teach on the Internet and how to avoid expensive mistakes in the development and delivery of online offerings.

The national Web-Based Education Commission has stated that while some online educational content is excellent, much of it is mediocre. Educators and content developers will have to find ways "to build fragmented lesson plans into full courses and assure the quality of learning in this new environment." Observes McEntee, "A lot of online courses are not designed well." They are simply traditional correspondence courses that have been transposed to the computer.

The newer technologies, however, are allowing instructors to build more interactivity into online courses, and as the technology advances, teacher-to-student and student-to-student interaction will continue to improve. So will access to a wide variety of resources, once considered a deficit in online learning. Scaglione notes, for example, that she has been able to place four years' worth of lesson plans and responses to case studies on the Web for her students. She is also in the process of capturing the best teaching strategies on video to create a video library.

Many teachers continue to hold the misconception that teaching online simply

means transferring their current teaching skills from the traditional classroom environment. Online teaching, however, requires some additional skills such as expertise in using online technologies and in engaging in visual thinking so that their materials and ideas are communicated effectively on a computer monitor.

Teachers also need to feel comfortable using a delivery mode in which they cannot see or hear the people with whom they are communicating. At the same time, they must be adept at establishing a sense of community. James, for example, likes to have students and teachers exchange pictures digitally or by mail. Posting introductions and encouraging students to look for areas of common interest are other helpful tactics. Brown, however, misses the chemistry of face-to-face interaction. "Synchronous classes and discussion groups can help alleviate that," he notes.

Nevertheless, because training and support for online course delivery has been sporadic at some institutions, many instructors feel that they have been left on their own to devise effective online teaching strategies. To encourage successful online instruction, Scaglione's university is in the process of establishing standards for online courses and will sponsor a forum for teachers to share their experiences. Currently, there are no national e-learning standards or benchmarks for the online delivery of courses and programs. Many educational experts consider some form of standards necessary to dispel the credibility issue of online degrees, which have often been considered inferior to those obtained at bricks-and-mortar campuses.

In March 2000, an Institute for Higher Education Policy study commissioned by the National Education Association and Blackboard Inc. identified 24 benchmarks to help ensure the quality and consistency of Internet-based instruction. To formulate the benchmarks, the Institute analyzed practical strategies that are being used in colleges considered to be leaders in online education. These benchmarks are outlined in Table 2.

Online Learning and Business Education

Scaglione and Brown consider online learning essential to the future of business

education. At Brown's school, enrollment in business methods courses has been declining. "It is difficult to staff courses with only one or two students," he says. Online delivery can help teachers serve these students while presenting an economically viable alternative for institutions seeking to ensure the survival of business education programs.

And because online courses can reach nontraditional students who might not otherwise have an opportunity to further their education, it is being seen as a strategy to alleviate the business teacher shortage. Among the nontraditional adults who can better participate in these classes are busy professionals seeking to make a career change and individuals interested in returning to the workforce after having spent several years raising a family.

Recently, NBEA sponsored a new initiative to develop a national model online methods course for business educators. Among the institutions participating in this project were the University of Maine in Machias, the University of South Carolina in Columbia, and the University of South Florida in Tampa. Janet Scaglione, Herb Brown, Arthur McEntee, and Patricia Moody were among the educators who looked at what they were teaching in their traditional classrooms and collaborated to create an online format that would teach the key competencies they believe students need to be able to demonstrate. The result was a fourteen-module course that is being piloted at each of the three institutions.

Ironically, as the supply of business teachers is dwindling, business courses are increasingly in demand by adult learners seeking to upgrade their skills for today's competitive job market. Indeed, business education and lifelong learning go hand in hand. As new business practices and technologies impact how business is conducted, they generate a need for better-educated workers. Because these workers may not have the time or flexibility to attend courses on a campus, online delivery provides a way for them to meet their business education needs.

While online learning is not a solution for all the challenges facing business education, it does seem to present some innovative and creative new ways to provide more course offerings, attract new

TABLE 2. MEASURES OF QUALITY IN ONLINE LEARNING

Institutional Support Benchmarks

- 1) A documented technology plan that includes electronic security measures to ensure both quality standards and the integrity and validity of information.
- 2) The reliability of the technology delivery system is as failsafe as possible.
- 3) A centralized system provides support for building and maintaining the distance education infrastructure.

Course Development Benchmarks

- 4) Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not availability of existing technology—determine the technology being used to deliver course content.
- 5) Instructional materials are reviewed periodically to ensure they meet program standards.
- 6) Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.

Teaching/Learning Benchmarks

- 7) Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail.
- 8) Feedback to student assignments and questions is constructive and provided in a timely manner.
- 9) Students are instructed in the proper methods of effective research, including assessment of the validity of resources.

Course Structure Benchmarks

- 10) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance and if they have access to the minimal technology required by the course design.
- 11) Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.
- 12) Students who have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web.
- 13) Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.

Student Support Benchmarks

- 14) Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.
- 15) Students are provided with hands-on training and information to aid them in securing material through electronic databases, inter-library loans, government archives, news services, and other sources.
- 16) Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.
- 17) Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints.

Faculty Support Benchmarks

- 18) Technical assistance in course development is available to faculty, who are encouraged to use it.
- 19) Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.
- 20) Instructor training and assistance, including peer mentoring, continues through the progression of the online course.
- 21) Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.

Evaluation and Assessment Benchmarks

- 22) The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.
- 23) Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.
- 24) Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.

Source: *Quality on the Line: Benchmarks for Success in Internet-Based Distance Education*, March 2000, The Institute for Higher Education Policy sponsored by the National Education Association and Blackboard Inc.

Keying In Feature Story. . .

ASSESSING ONLINE LEARNING

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1900 KENNY RD
COLUMBUS OH 43210-1016

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students, and create more jobs for business teachers. Observes Johnson: "Business educators must approach these technologies with all possible enthusiasm and dedication to guarantee that instructional leadership will continue to flourish in business education."

Online Learning and the Future

While research on the efficacy of online learning continues to be inconclusive, the demand for it is inescapable. "Students, as consumers, are demanding and willing to pay for education and learning experiences which can be delivered at the time and place where that learning is most relevant and convenient," observes a study conducted by Edwards and Fritz in 1997.

The Web-Based Education Commission notes that "although Web-based education is in its earliest phase, it holds extraordinary promise." Among the issues the Commission believes need to be addressed for this medium to fully realize its promise are: greater access to broadband connectivity, guidance for the best uses of the Web for learning, better understanding of how people learn differently on the Internet, and content that fully leverages the powerful capabilities of the Web.

As technology continues to transform how we access learning and knowledge, however, it also seems clear that it cannot replace the "human factor" in education. Thomas E. Cyrs, editor of *Teaching and Learning at a Distance*, notes in an overview of the distance education field that "students do not learn from the technol-

ogy. They learn from competent instructors who have been trained how to communicate through the technology."

"At the end of the day," observes Johnson, "we must realize that students do not learn any better or worse in a distance learning environment. There are other considerations that have a greater impact on a student's ability to learn." Chief among these considerations, according to the American Federation of Teachers/ National Education Association sponsored study, are the quality of the learning tasks, learner characteristics, student motivation, and the instructor and the art of teaching.

Teachers will always be essential to the learning process. Regardless of the medium they use, good teachers are able to find ways to connect with their students and to inspire and encourage them.

R E S O U R C E S

- Boss, S. J. (2000, December). Columbia Goes Digital. *Columbia College Today*, 12-23.
- Cyrs, T. E. (1997, Fall). *Teaching and Learning at a Distance: What It Takes to Effectively Design, Deliver, and Evaluate Programs*. San Francisco, CA: Jossey-Bass Publishers.
- Edwards, C. and Fritz, J. H. (1997). Evaluation of Three Educational Online Delivery Approaches. *Proceedings From the Mid-South Instructional Technology Conference*.
- Johnson, J. E. (1999). Distance Education: Learning for the 21st Century. *The 21st Century: Meeting the Challenges to Business Education*. 1999 NBEA Yearbook. Reston, VA: National Business Education Association.
- Morgan, C. and O'Reilly, M. (1999). *Assessing Open and Distance Learners*. London, England: Kogan Page.
- Morse, J. (2000, November 8). What Are Online Courses Really Like? *Time Digital*. [Online]. Available: <http://www.time.com/time/digital/daily/0.2822.60115.00.html>.

- O'Malley, J. and McCraw, H. (1999, Winter). Students' Perceptions of Distance Learning, Online Learning, and the Traditional Classroom. *Online Journal of Distance Learning Administration*. [Online]. Available: <http://www.westga.edu/~distance/omalley24.html>.
- Owston, R. (1998). *Making the Link: Teacher Professional Development on the Internet*. Portsmouth, NH: Heinemann.
- Paloff, R. M. and Pratt, K. (1999). *Building Learning Communities in Cyberspace*. San Francisco, CA: Jossey-Bass Publishers.
- Phipps, R. and Merisotis, J. (1999). *What's the Difference? A Review of Contemporary Research on the Effectiveness of Distance Education in Higher Education*. Washington, DC: The Institute for Higher Education Policy.
- Phipps, R. and Merisotis, J. (2000, March). *Quality on the Line: Benchmarks for Success in Internet-Based Distance Education*. Washington, DC: The Institute for Higher Education Policy.
- Symonds, W. C. (2000, August 21-28). High School Will Never Be the Same. *Business Week*, pp. 190-192.
- Web-Based Education Commission. (2000, December). *The Promise of the Internet for Learning: Moving From Promise to Practice*. Washington, DC: Web-Based Education Commission.